THE DECLINE IN THE RATIO OF BANKING CAPITAL TO LIABILITIES.

SUMMARY.

I. The decline has taken place, for the national banks, by abrupt drops in periods of business revival, with steadiness in intervening periods, 697.—Has extended to all classes of banks, 698.—Due proximately to rapid increase of deposits, with stationary capital, 699 —II. The main cause has been an increase of lawful money supplied to the banks by the general public, 703.—III The same tendency appears in the English banks, the Canadian banks, the State banks, 708.—IV. The decline not necessarily an indication of weakness, 712.

I.

Critics of the national banks have often called attention to the fact that the ratio of capital to total liabilities has fallen. But seemingly no one has noticed the curious way in which this fall has occurred. Practically, the whole decline of the ratio has taken place in two periods of rapid recovery from severe business depression,—1878–80 and 1896–99. Table I. presents the facts succinctly. "Capital liabilities" includes capital, surplus, and undivided profits. The ratios for each year are averages of the ratios computed from the reports made to the Comptroller of the Currency,—four a year from 1864 to 1869, five since 1870. For 1909 only two reports are now available.

TABLE I.

Ratio of Capital Liabilities to Total Liabilities of the National Banks, 1864–1909.

Years.	Ratios.	Years	Ratios	Years	Ratios.	Years	Ratios	Years	Ratios
1864	35%	1874	36%	1884	32%	1894	29%	1904	20%
1865	33	1875	37	1885	31	1895	29	1905	19
1866	33	1876	38	1886	31	1896	30	1906	19
1867	34	1877	37	1887	31	1897	27	1907	19
1868	35	1878	36	1888	31	1898	24	1908	19
1869	36	1879	32	1889	30	1899	21	1909	18
870	37	1880	30	1890	31	1900	20		
871	35	1881	28	1891	32	1901	19		
872	36	1882	29	1892	29	1902	20		
1873	37	1883	30	1893	31	1903	21		

SUMMARY.

	Lowest Ratio.	Highest Ratio.	Average Ratio.
1864 to 1878	33%	38%	36%
1880 to 1896	28	32	30
1899 to 1908	19	21	20

The striking feature of this series of figures is not the drop in 1878–80 and again in 1896–99, but the relative steadiness of the ratios from 1864 to 1878, from 1880 to 1896, and from 1899 to 1908. Within each of these periods the extreme range of the ratios is less than the fall from one period to the next. Further, the lowest ratio of each period is higher than the highest ratio of the succeeding period. These differences between the three periods of relatively steady ratios would be still more striking if the figures for the first four years, when the national banking system was in process of formation, were omitted. Through years of established prosperity, through years of panic, and through years of depression the capital of the national banks has expanded or contracted in proportion with changes in the volume of their liabilities to the public. But in periods of transition from prolonged business stagnation to business activity capital has fallen rapidly behind, and in after-years has never regained its former proportion. Recovery from minor crises, such as occurred in 1884 and 1903, has been attended by changes similar in kind, but slight in degree.

Closer examination shows that this change has extended to all of the classes into which the national banks are divided by the legal provisions regarding minimum reserves (Table II.).[1]

[1] This table is based upon only one report for each year because the Comptroller publishes summaries for the reserve city and country banks of the autumnal reports alone. But the variations in the ratio between different reports for the same year are so slight as to make the lack of fuller data of little moment.

TABLE II.

RATIO OF CAPITAL LIABILITIES TO TOTAL LIABILITIES IN THE VARIOUS CLASSES OF NATIONAL BANKS, 1878 AND 1880, 1896 AND 1899.[1]

	All National Banks.	Country Banks.	Reserve City Banks.	Boston, Philadelphia, and Baltimore Banks.	New York City Banks.
October 1, 1878 . .	35%	42%	33%	34%	20%
October 1, 1880 . .	30	37	25	29	17
	5%	5%	8%	5%	3%

	All National Banks.	Country Banks.	Reserve City Banks.	Central Reserve City Banks.	New York City Banks.
October 6, 1896 . .	30%	35%	29%	21%	19%
September 7, 1899 .	21	27	18	12	11
	9%	8%	11%	9%	8%

At the beginning of both periods, in 1878 and in 1896, the city banks had a decidedly lower ratio of capital to total liabilities than the country banks. But, nevertheless, the decline in the ratio during both periods was greater in the reserve cities than in the country. In New York, on the contrary, the decline was smaller than in the country in 1878–80, and the same as that in the country in 1896–99.

Since the change occurred among national banks of all classes, its cause may be sought in the Comptroller's summaries of the "Aggregate Resources and Liabilities of the National Banks." Tables III. and IV. are based upon these summaries of the autumn reports of 1878 and 1880, 1896 and 1899. To facilitate comparisons, the Comptroller's statements have been condensed by combining similar items.

Both tables show that the chief cause of the decline in the ratio of capital to total liabilities was an extremely rapid increase of deposits at times when capital was stationary

[1] Computed from tables in the Reports of the Comptroller of the Currency: 1878, p. v; 1880, p. iv; 1896, p. 561; 1899, p. 419.

or declining. In the earlier period of business revival (1878–80) deposits increased more than $300 millions, while capital did not change: in the later period (1896–99) deposits increased more than $1,400 millions, while capital actually declined $29 millions. In comparison with the vast increase of deposits, the changes in liabilities for notes and for miscellaneous items were almost negligible. Of course, the rapid growth of deposits swelled the total liabilities, so that the proportion borne to this total by the stationary or declining capital became rapidly less.

TABLE III.

SUMMARY OF THE CONDITION OF ALL NATIONAL BANKS, OCTOBER 1, 1878, AND OCTOBER 1, 1880.

	Actual Figures Millions of Dollars.			Relative Figures Percentages of Total Assets and Liabilities.		
	1878.	1880.	Changes.	1878.	1880.	Changes.
Capital, surplus, profits	624	624	—	35.3%	29.6%	—5.7%
National bank notes	302	317	+ 15	17.1	15.1	—2.0
Deposits	833	1,157	+324	47.2	55.0	+7.8
Other liabilities	8	8	—	.4	.3	— .1
Total	1,767	2,106	+339	100.0%	100.0%	
Loans and discounts	834	1,041	+207	47.2%	49.4%	+2.2%
United States bonds and premiums	449	405	— 44	25.4	19.3	—6.1
Other bonds and stocks	37	49	+ 12	2.1	2.3	+ .2
Due from other banks	139	213	+ 74	7.9	10.1	+2.2
Exchanges, checks, and cash items	93	134	+ 41	5.3	6.3	+1.0
Lawful money	128	174	+ 46	7.1	8.3	+1.2
Other assets	87	90	+ 3	5.0	4.3	— .7
Total	1,767	2,106	+339	100.0%	100.0%	
Analysis of deposits:						
Individual deposits	623	878	+255	35.3%	41.7%	+6.4%
United States deposits,	45	11	— 34	2.6	.6	—2.0
Bank deposits	165	268	+103	9.3	12.7	+3.4
Gross deposits	833	1,157	+324	47.2	55.0%	+7.8%
Net deposits	601	810	+209			

TABLE IV

SUMMARY OF THE CONDITION OF ALL NATIONAL BANKS, OCTOBER 6, 1896, AND SEPTEMBER 7, 1899

	Actual Figures Millions of Dollars			Relative Figures Percentages of Total Assets and Liabilities		
	1896	1899	Changes	1896	1899	Changes
Capital, surplus, profits	985	956	− 29	30.2%	20.5%	− 9.7%
National bank notes	210	200	− 10	6.4	4.3	− 2.1
Deposits	2,030	3,460	+1,430	62.2	74.5	+12.3
Other liabilities	39	34	− 5	1.2	.7	− .5
Total	3,264	4,650	+1,386	100.0%	100.0%	
Loans and discounts	1,893	2,516	+ 623	58.0%	54.1%	− 3.9%
United States bonds and premiums	280	348	+ 68	8.6	7.4	− 1.2
Other bonds and stocks	189	320	+ 131	5.8	6.9	+ 1.1
Due from other banks	332	686	+ 354	10.1	14.8	+ 4.7
Exchanges, checks, and cash items	91	172	+ 81	2.8	3.7	+ .9
Lawful money	343	466	+ 123	10.6	10.1	− .5
Other assets	136	142	+ 6	4.1	3.0	− 1.1
	3,264	4,650	+1,386	100.0%	100.0%	
Analysis of deposits						
Individual deposits	1,600	2,452	+ 852	49.1%	52.8%	+ 3.7%
United States deposits,	15	79	+ 64	.4	1.7	+ 1.3
Bank deposits	415	929	+ 514	12.7	20.0	+ 7.3
Gross deposits	2,030	3,460	+1,430	62.2%	74.5%	+12.3
Net deposits	1,607	2,602	+ 995			

Periods of depression and periods of established prosperity present a sharp contrast to these periods of business revival, in that capital and demand liabilities rise or fall together instead of moving in opposite directions. Between 1899 and 1907 capital rose $675 millions and deposits rose $2,616 millions;[1] between 1892 and 1896 capital fell $42 millions and deposits fell $284 millions; between 1880 and 1892 capital rose $403 millions and deposits rose $1,157 millions; between 1866 and 1873 capital rose $571 millions, deposits rose $656 millions, and notes, then of greater relative importance, rose $294 millions. In only one period which can be confidently contrasted with our two periods of business revival did capital and deposits fail to coincide in the direction of their movements. This

[1] All of these comparisons are based upon tables like Tables III. and IV. for the fourth of the five reports made yearly to the Comptroller.

one period is 1873 to 1878. During it capital fell $42 millions and deposits rose $20 millions. But the whole of this gain of deposits, and more, was due to an increase of deposits by the United States and its disbursing officers amounting to $29 millions, and brought about by Secretary Sherman's refunding operations. Moreover, notes, which then as in the earliest period stood more nearly on a par with deposits, fell $37 millions. These years of panic and depression therefore make no real exception to the rule.

II.

This contrast between periods of business revival, on the one hand, and periods of depression or prosperity, on the other hand, presents two problems. Why does not capital increase promptly when business revives, and what is the source of the great increase of deposits?

An answer to the first question is given by the Comptroller's figures for the average net earnings of the national banks (Table V.).

TABLE V.

RATIO OF THE NET EARNINGS OF ALL NATIONAL BANKS TO CAPITAL AND SURPLUS: BY YEARS, 1870–1908.[1]

Years ending March 1.	Ratios.	Years ending March 1.	Ratios.	Years ending March 1.	Ratios.	Years ending March 1.	Ratios.
1870	11.8%	1880	6.7%	1890	8.6%	1900	8.2%
1871	10.4	1881	8.4	1891	8.9	1901	10.0
1872	10.2	1882	9.5	1892	7.8	1902	10.5
1873	10.7	1883	8.6	1893	7.4	1903	10.1
1874	10.3	1884	8.6	1894	5.6	1904	10.4
1875	9.5	1885	6.9	1895	5.0	1905	9.0
1876	8.1	1886	7.3	1896	5.4	1906	9.5
1877	6.3	1887	8.5	1897	5.4	1907	12.3
1878	5.3	1888	8.8	1898	5.2	1908	9.1
1879	4.8	1889	8.7	1899	5.8		

[1] Report of the Comptroller of the Currency, 1908, p. 228. The ratios are not averages of similar figures for each national bank, but the quotients obtained by dividing the aggregate net earnings of all banks by their aggregate capital and surplus. The Comptroller gives 16.4 per cent. for 1907, explaining that this ratio covers four extra months, March to June, 1907. I have therefore subtracted one-quarter from this ratio to make the figure comparable with that for other years. I assume that the figure for 1908 covers July 1, 1907, to June 30, 1908.

SUMMARY.

Years ending March 1.	*Average Ratios.*
1870–74	10.7%
1875–80	6.8
1881–93	8.3
1894–99	5.4
1900–08	9.9

Both in the seventies and in the nineties the years preceding the fall of the ratio were years of low net earnings, which discouraged the investment of capital in the banking business. Few new banks were established; some old banks went bankrupt; others went into voluntary liquidation; still others remained in business, but reduced their capital. After the panic of 1873 the number of national banks continued to grow until June 30, 1876; but then the number fell from 2,091 to 2,048 on October 2, 1879. Meanwhile the average capital, surplus, and undivided profits of the banks in business declined from $324,000 to $298,000. After the panic of 1893 the loss of numbers began more promptly and became much greater. May 4, 1893, the number stood 3,830. From that point there was an almost unbroken fall to 3,579 on February 4, 1899. Between these dates the average capital liabilities were reduced from $272,000 to $263,000.

But these reports of October 2, 1879, and February 4, 1899, which show the lowest points touched by capital liabilities, are not the reports which show the lowest ratios of capital to total liabilities. For, tho capital began to increase again, its growth was slow for some time. And the table of net earnings explains that fact. Revival of business activity may be dated from the autumn of 1879 in the earlier case and from the autumn of 1897 in the later. But net earnings did not rise to the moderately profitable level of 8 per cent. until the twelve months ending March 1 of 1881 and 1900, respectively. These records seem to put banking among the trades which recover slowly from business depression. That banking should be slow in attracting new investments of capital is therefore to be expected.

The source of the great increase of deposits is not so

simple a matter to determine as it may seem. For deposits may be augmented not only by an inflow of actual cash from individual customers, from public and private corporations, or from other banks, but they may also be augmented by the lending of deposit credits and the deposit of checks drawn against such credits. It is, therefore, necessary to scrutinize the changes in the deposit, loan, and cash accounts somewhat closely.

Table III. shows that deposits increased $324 millions between October 1 of 1878 and of 1880. But from this gross amount there should be deducted two items which represent duplications,—the $74 millions of increase in sums due from other banks and the $41 millions of increase in exchanges for the clearing house, checks, and cash items.[1] There remains a net increase in deposits of $209 millions. Since the increase in loans was $207 millions, it may be thought that the growth of deposits during this period of business revival was due almost wholly to freer lending of deposit credits, and hardly at all to an inflow of funds from customers. But there is a further question: How were the banks enabled to increase their loans of deposit credits? To expand deposit credits by lending ordinarily requires an expansion of lawful money reserves. In fact, the banks increased their holdings of lawful money at a slightly faster pace than their deposits grew, for the proportion of reserve against net deposits, computed as above, rose from 21.3 per cent. to 21.5 per cent. The additional $46 millions of reserve money did not come from the stockholders, for there was no increase of capital, surplus, and profits. It did not come from sales of bank property, for, tho the banks sold $44 millions of United States bonds, they had to pay back $34 millions of United States deposits, and they increased their holdings of other bonds and stocks and of

[1] A portion of the latter sums belongs in the accounts of banks other than national. The estimate of increase in net deposits which results is, therefore, conservative The method of computing net deposits followed here differs from that of the Comptroller in that (1) United States deposits are included, (2) sums due from reserve agents are treated like other sums due from banks, and (3) that bills of other national banks are left out of account.

miscellaneous property by $15 millions. It must therefore have come from depositors. In other words, the increase of deposits was brought about by an increase of money supplied to the banks by the general public. This increase of money then became the basis for a further increase of deposits through larger loans.

The later case is far more striking. Net deposits increased $995 millions, of which we may assign $64 millions to the United States, $160 millions to banks other than national, and $771 millions to individual depositors. Meanwhile the gain in loans was $623 millions, or $372 millions less than the gain in net deposits. Once, again, this gain in loans was itself ultimately due to increased deposits of lawful money. For of the $123 millions gain in reserve, not a dollar was provided by the stockholders or by sale of other bank property. On the contrary, the stockholders withdrew $29 millions of their capital, and at the same time put $205 millions additional into the United States or other bonds and stocks and into miscellaneous investments. So freely, indeed, did the banks use the increased funds put at their disposal by the public in withdrawing capital, buying securities, and extending loans, that they reduced the proportion of their reserve from 21.2 per cent. of net deposits to 17.9 per cent.

In this second period the fall in the ratio of capital to total liabilities was considerably greater than in the first period of business revival. The summary of Table I. shows a drop of six points in this ratio between the averages for 1864–78 and 1880–96, and a drop of ten points between the averages for 1880–96 and 1899–1908. Table III. makes the drop 5.7 points, Table IV. 9.7. Part of the difference is due to the fact that capital remained stable from 1878–80, and government deposits decreased, while in 1896–99 capital fell and government deposits increased. But, if we alter the figures for the later period to correspond with those of the earlier period in these respects,—that is, if we take capital in 1899 the same as in 1896, and government deposits less than in 1896 by three-quarters,—the ratio of capital to

total liabilities is raised only to 21.4 per cent., and the drop in the ratio still remains considerably greater than in 1878–80—8.8 as against 5.7 points. The remaining difference is due to the more rapid growth of deposits at the later period.[1]

This increased deposit of money in the banks is shown from another side by the Comptroller's figures for the distribution of money between the banks and the public. Between the 1st of July, 1896 and 1899, the treasury released about $8 millions of the sums it had been hoarding[2] There was also an increase of about $390 millions in the total stock of money in the country. Thus the banks and the public had about $398 millions of additional money to divide between themselves. In 1896 the public held 65 per cent. of all money outside of the treasury, and the banks held 35 per cent. But, as the stock increased, the division between the public and the banks altered in favor of the latter, so that on July 1, 1899, they held 38 per cent. against 62 per cent. for the public.[3]

In times of business revival, then, the great increase of national bank deposits has been brought about by the actual deposit of more money in the banks. The business public has supplied the banks with funds, which the banks have employed to increase their profits. In part they have treated the additional funds as reserves against which they have lent larger deposit credits, thus increasing deposits still further; in part they have bought more interest-bearing securities; in part they have distributed funds to stock-

[1] Probably some connection exists between this faster growth of deposits and the fall in the ratio of reserve from 21.2 per cent. in 1896 to 17.9 per cent. in 1899, for in 1878–80 this ratio increased from 21.3 to 21.5 per cent. But much stress cannot be laid upon this difference between the periods, since the increase of loans was much greater in comparison with deposits in 1878–80 Even if the gain in other bonds and stocks be added to the gain in loans as a source of deposit credits, the difference between the two periods is but little reduced.

[2] See F. W. Taussig, "The United States Treasury in 1894–96," Quarterly Journal of Economics, January, 1899.

[3] The Comptroller has not introduced into these figures the revision made by the Director of the Mint in his estimate of the stock of gold Were this change made, the share of the banks would be 38 per cent in 1896 and 40 per cent. in 1899. Similar statistics are not available for 1878–80

holders, thus reducing their capital. These changes have all conduced towards increasing the percentage of net earnings by increasing the actual income or by decreasing the capital upon which the percentage is computed. The result has been that the low earnings of years of depression have been raised once more to attractive figures. Then stockholders have again begun to provide from their own pockets the additional funds required by expanding business, and the fall in the ratio of capital to total liabilities has been checked.

The United States seems now to be entering upon another period of business revival, similar to the revivals of 1878–80 and 1896–99. Will another decline in the ratio of capital to liabilities take place? All the experience summarized in Table I. suggests that it will. Indeed, a slight decline has already occurred, as the following figures for the successive reports to the Comptroller since the summer of 1907 show:

Date of Report		*Ratio.*
1907.	August 22	19.4%
	December 3	19 6
1908.	February 14	19.6
	May 14	19 4
	July 15	19 1
	September 23	18 7
	November 27	18.5
1909	February 5	18 4
	April 28	18.5

But, apart from the fact that the ratio is already on a lower level than in 1896, there is reason for expecting any further change to be small in comparison with the ten point drop of the later nineties. If the depression following the panic of 1907 is already over, it must rank as a disturbance of business conditions far less protracted than the disturbances following the panics of 1893 and 1873. So far the capital of the national banks has not been diminished. Only the rapidity of its growth has been checked, and that but slightly. Whatever change occurs, therefore, seems likely

to be caused solely by the growth of deposit or note liabilities, without the contributory influence of falling capital.

III.

Neither the decline in the ratio of banking capital to liabilities, nor the occurrence of this decline in periods of returning prosperity, is peculiar to the national banks. Table VI. shows that similar changes have taken place in three other important groups of banks.[1] The English joint-stock banks, which had a much lower ratio in the seventies; the Canadian banks, which had a much higher ratio; and the State banks, which had, approximately, the same ratio,—all, like the national banks, have failed to increase their capital in proportion to the growth of their total liabilities.

[1] The figures for the American State banks cannot be carried back of 1873, for that was the first year the Comptroller of the Currency was authorized to call upon State officials for reports. These data, moreover, are less satisfactory than those for the national banks in that they refer to but one day of the year—about the 1st of July—and in that not all institutions of the class are represented. The Canadian data are based upon annual averages of the monthly reports made to the Minister of Finance. These reports do not show the undivided profits of the banks. Accordingly, the aggregate liabilities to stockholders have been computed by subtracting the liabilities to others from the total assets. The English data are derived from the tabular statement published by the London Economist in October of each year, beginning with 1877. The Bank of England is omitted, and the returns for 1877 are not used because of the relative incompleteness of the Economist's first attempt to compile a summary for all joint-stock banks.

TABLE VI.

RATIO OF CAPITAL LIABILITIES TO TOTAL LIABILITIES OF THE NATIONAL BANKS, THE STATE BANKS, THE CANADIAN BANKS, AND THE JOINT-STOCK BANKS OF ENGLAND AND WALES.

Data from the Reports of the Comptroller of the Currency, the Canadian Year Book, and the London Economist.

Years.	National Banks.	State Banks.	Canadian Banks.	English Banks.
1868	35%	—	44%	—
1869	36	—	41	—
1870	37	—	36	—
1871	35	—	36	—
1872	36	—	39	—
1873	37	31%	40	—
1874	36	31	38	—
1875	37	28	44	—
1876	38	35	46	—
1877	37	35	45	—
1878	36	41	46	15%
1879	32	40	44	16
1880	30	33	39	16
1881	28	29	37	16
1882	29	28	34	16
1883	30	27	36	17
1884	32	30	38	16
1885	31	30	37	16
1886	31	28	36	16
1887	31	28	35	16
1888	31	32	33	15
1889	30	29	32	15
1890	31	30	32	15
1891	32	32	30	15
1892	29	31	29	15
1893	31	31	28	15
1894	29	32	28	15
1895	29	31	27	13
1896	30	30	28	12
1897	27	29	26	12
1898	24	25	24	12
1899	21	21	23	12
1900	20	21	22	12
1901	19	19	21	12
1902	20	19	20	12
1903	21	20	21	12
1904	20	20	20	12
1905	19	19	19	12
1906	19	18	19	11
1907	19	18	19	11
1908	19	18	19	11
1909	18			

SUMMARY.

	Average Ratios by Periods.		
	To 1878.	1880–96.	1899–1908.
National banks	36%	30%	20%
State banks	34	30	19
Canadian banks	41	33	20
English banks	—	15	12

The summary shows, further, that the decline in the ratios for these other groups of banks can be forced to fit into the periods marked off by the record of the national banks. For our own State banks these periods fit well. Independent examination of their ratios would suggest 1878–81 and 1896–99 as the years of shifting to permanently lower levels. The chief differences between the movements for the State and national banks is found in the less steady State-bank ratios during periods of depression and periods of prosperity. But this difference is trifling for 1881–96 and for 1899–08. It is marked only for 1873–78, and may be due to imperfections in the earlier returns.

The English ratios, on the other hand, suggest a division into somewhat different periods, divided from one another by changes much slighter than have occurred among the American banks because the ratios have long been so much lower in England. The first change came between 1887 and 1888. England suffered a far more severe business depression in 1884–86 than the United States,—a depression so severe that a Royal Commission was issued to inquire into the depression of trade and industry. Accordingly, the years 1887 and 1888 had much more the character of a business revival than with us. It is, therefore, rather a confirmation than a contradiction of inferences from the record of the national banks to find the English ratio dropping slightly at a time when the American ratio was nearly stable. A second and greater fall occurred in 1894–96. Aside from the less degree of change, the sole difference from American experience is that the fall began two years earlier in England. But this difference also is in strict accordance with expectations based upon the previous study, for trade revived in England after the crisis of 1890 earlier than trade revived in the United States after the crisis of 1893. Finally, the English ratio fell one point more in 1905–06, when the country was recovering from the hard times which followed the Boer War.

The Canadian ratios, likewise, show certain divergencies from those for the United States, but divergencies which

seem to be connected with the course of business cycles. In 1867 the failure of the Commercial Bank was followed by runs upon other banks, by restriction of credit accommodation in the busy autumn season, and by commercial stagnation.[1] Next year a period of great activity began, and in 1868–70 the ratio of capital to total liabilities fell from 44 per cent. to 36 per cent. However, there followed a substantial recovery in the ratio in 1871–76,—a recovery which finds no parallel in the other groups of banks. Changes in business conditions, in banking legislation, and in banking competition, seem to account for the alteration. The banks began to apply the brake to the over-rapid progress of business as early as 1872. In 1873 there was no panic, and severe stringency did not begin until 1875. Meanwhile the legislature began in 1871, to insert in new bank charters a clause providing that, if $100,000 of the capital were not certified as paid within one year, the charter should be forfeited for non-user. Finally, the banks were engaged in a competitive struggle to increase their capitals and "rests." Part of the large gain in capital which resulted was fictitious according to Mr. Breckenridge, being represented by loans upon the security of shares in other banks or by advances to a bank's own stockholders.[2]

After 1876 the Canadian ratios pursue a course similar in character to the others represented in Table V. A shift to a permanently lower level came in 1878–81, and a second slighter drop in 1887–93, when the movement in Canada seems to stand half-way between that in the United States and in England. There was again stability during the hard times of 1893–96, and another fall during the business revival of 1896–1900. Since then the Canadian ratios have been almost exactly the same as those for the national banks.

[1] R. M. Breckenridge, The Canadian Banking System, pp. 185–191.

[2] Pages 266–270.

IV.

Whether the decline which has occurred so generally in the proportion of bank funds supplied by the stockholders seriously weakens the banks is a question to which two answers are given. Dr. Frederick A. Cleveland, for example, one of the best-equipped critics of the national banking system, holds that the stockholders should furnish their banks with sufficient funds to provide office equipment and an adequate money reserve; that is, sufficient money to meet demands for payment on all the credit which the bank is able to sell. He compares a bank which relies for reserve upon money deposited with it by customers to "a railroad that is carrying a part of its construction on floating debt, or a manufacturer who has supplied himself with machinery by means of demand loans." And he estimated in January, 1908, that his rule would require the addition of not far from $500,000,000 to the capital of national banks.[1]

The material which has been presented, however, need not lead to such conclusions as Dr. Cleveland draws. Our city banks have a record quite as good as that of our country banks, and yet Table II. shows them to have a much smaller ratio of capital to total liabilities. The English joint-stock banks have not, like our banks, been compelled to suspend payments twice in fifteen years, and yet their ratios have long been far less than ours. It is also a striking fact that the decline in the ratios has occurred chiefly in those very periods when confidence in the banks and in business conditions has been increasing and partly because of that very increase of confidence. The question of the strength and elasticity of banking systems is a question of the reserves carried in proportion to deposits, of the perfection of organization which enables the banks to make the most effective use of these reserves, and of the sagacity of banking practise in keeping assets liquid and acting boldly in the face

[1] F. A Cleveland, The Bank and the Treasury. New edition, 1908. Introduction, pp. xix and xxviii.

of crises. If the banks of the United States, Canada, or England, are weaker now than in the seventies,—which is by no means sure,—the cause must be sought in a decline of reserves not offset by higher organization or more sagacious practise. Adequate treatment of this large subject would require far more space than is available here. But the opinion may be ventured that the decline in the ratio of capital to total liabilities is not an element of danger unless it is accompanied by changes for the worse in some one of the respects mentioned.

On the contrary, it may be suggested that the inpour of millions of customers' money at times of business revival promotes the recovery out of which it grows. For a heavy increase of deposits on which no interest or a low interest is paid gives the banks a basis for far larger loans than they could otherwise make. Competition between them for the available business prevents interest rates from rising so rapidly as they would if the stockholders themselves had to provide the whole increase of funds. And the fact that there is seldom a recurrence to the old ratio of capital to liabilities during the subsequent years of prosperity means that the banks, with their larger proportion of depositors' money, are able to do more business with the same capital investment. From this standpoint the change means a more efficient utilization of the community's current funds.

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